1. Write a Python Program to Check if a Number is Positive, Negative or Zero?

a=float(input("enter a number"))

if a>0:

print("number is positive")

elif a<0:

print("number is negative")

else:

print("the number is zero")

1. Write a Python Program to Check if a Number is Odd or Even?

a=float(input("enter a number"))

if a%2==0:

print("the number is even")

else:

print("the number is odd")

1. Write a Python Program to Check Leap Year?

a=int(input("enter year"))

if a%4==0:

print("It is a leap year")

else:

print("it is not a leap year")

1. Write a Python Program to Check Prime Number?

num = int(input("Enter a number: "))

# If number is greater than 1

if num > 1:

# Check if factor exist

for i in range(2,num):

if (num % i) == 0:

print(num,"is not a prime number")

break

else:

print(num,"is a prime number")

# Else if the input number is less than or equal to 1

else:

print(num,"is not a prime number")

1. Write a Python Program to Print all Prime Numbers in an Interval of 1-10000?

lower = 1

upper = 1000

print("Prime numbers between", lower, "and", upper, "are:")

for num in range(lower, upper + 1):

# all prime numbers are greater than 1

if num > 1:

for i in range(2, num):

if (num % i) == 0:

break

else:

print(num)